



# **COMMONWEALTH of VIRGINIA**

## **DEPARTMENT OF ENVIRONMENTAL QUALITY**

### **TIDEWATER REGIONAL OFFICE**

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### **STATEMENT OF LEGAL AND FACTUAL BASIS**

Perdue Farms Incorporated  
Accomac, Virginia  
Permit No. TRO-40483

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Perdue Farms Incorporated has applied for a Title V Operating Permit Significant Modification for its Accomac, Virginia facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact:

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Date:

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Date:

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Date:

## **I. FACILITY INFORMATION**

### Permittee

Perdue Farms Incorporated  
22520 Lankford Highway  
Accomac, Virginia 23301

### Facility

Perdue Farms Incorporated  
22520 Lankford Highway  
Accomac, Virginia 23301

County-Plant Identification Number: 51-001-00010

### **A. SOURCE DESCRIPTION**

NAICS 311999 – miscellaneous food manufacturing (poultry slaughtering and processing)

NAICS 311613 – rendering and meat byproduct processing

Facility processes live poultry into fresh poultry food products. Remaining meat and offal by-products are converted to meat meal and fat, and feathers and blood are converted to high protein feather meal.

There are two boilers at the poultry processing plant, four boilers at the by-product protein conversion plant, an ammonia refrigeration system, a wastewater treatment plant, and an emergency generator. House air odor is controlled by packed tower scrubbers while high intensity odor from processes is controlled by a DFS system that includes, in series, a venturi scrubber, a spray condenser, and a packed tower scrubber. The wastewater treatment plant has a lime silo with fabric filter.

The facility is a Title V major source of SO<sub>2</sub> and NO<sub>x</sub>. This source is located in an attainment area for all pollutants, and is a PSD major source of SO<sub>2</sub>. The facility currently has a Title V renewal permit dated 2/02/11. The underlying permits are a New Source Review permit dated 08/03/2007 and a State Operating Permit dated 01/23/2006. The 8/03/2007 NSR, a result of several amendments, has the combined annual emission limits for the boilers at the by-product protein conversion plant (ES7, ES8, ES9, and ES10) and the emergency generator (ES13). The 01/23/2006 SOP contains state-only-enforceable odor control requirements in accordance with Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution at 9 VAC 5-40-130 et seq. and 9 VAC 5-50-130 et seq. to satisfy the requirements of the Consent Order dated March 3, 2003, which had been terminated on March 24, 2006.

## **II. COMPLIANCE STATUS**

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

### III. EMISSIONS INVENTORY

A copy of the 2010 annual emission update is attached. Emissions are summarized in the following table.

2010 Actual Criteria Pollutant Emission in Tons/Year				
VOC	CO	SO <sub>2</sub>	PM <sub>10</sub>	NO <sub>x</sub>
0.4	7.3	156.7	12.9	57.6

### IV. REQUESTED MODIFICATION

The facility applied on 05/02/2011 for a minor NSR permit to install and operate a 90 million Btu/hr rental boiler firing distillate oil to replace an existing boiler (ES7) that needs repair. The rental boiler is expected to remain on-site for no longer than 365 consecutive days from start-up unless an extension is requested and granted by DEQ. The facility is still to decide whether to repair ES7 or replace it permanently with a new unit. In the mean time, the rental boiler will provide the needed steam for the facility's operation. The minor NSR permit was issued on 9/09/2011. This Title V permit modification is to incorporate the minor NSR requirements. In addition, it also incorporates the requirements of the newly effective area source MACT Subpart JJJJJ that is applicable to all boilers at the facility. Please note that as the MACT has not been delegated to Virginia, the requirements were not incorporated in the minor NSR permit.

### V. APPLICABILITY OF 9 VAC 5-80-230

Notwithstanding the requirements of the newly effective MACT Subpart JJJJJ, this Title V permit modification will add a new emission unit (rental boiler TB1) with all associated emission limits and other applicable requirements from the 0/09/2011 minor NSR permit. Therefore, this modification will be processed using the Significant Modification Procedures as defined in 9 VAC 5-80-230.

### VI. CHANGES TO THE TITLE V OPERATING PERMIT TO INCORPORATE 09/09/2011 MINOR NSR REQUIREMENTS ON RENTAL BOILER TB1

The rental boiler TB1 is an addition to the equipment list. As it will replace boiler ES7 in the protein conversion plant, TB1 may be added to the title of the current Title V permit **Section IV. Emergency Generator and Protein Conversion Plant Boiler Requirements – Emission Units ES7, ES8, ES9, ES10, and ES13, and** the requirements in the 9/09/2011 permit may be combined with the existing conditions on the other boilers in the protein conversion plant. Those existing conditions would have to be changed as necessary to accommodate TB1 and then changed back when TB1 is removed as it is permitted to operate up to 365 consecutive days unless an extension is requested and granted by DEQ. Therefore, it was decided that it would be better to add a new section to the Title V permit that is dedicated to TB1 and can be easily removed when TB1 is gone. The new section, **V. Rental Boiler Requirements- Emission Unit TB1**, is discussed below.

#### A. Limitations

All limitations from the 9/09/2011 minor NSR permit for boiler TB1 were included. Note that the boiler was manufactured in 2001; hence it is subject to NSPS Subpart Dc. The requirements of  $\leq 0.2\%$  sulfur in the distillate oil fuel (Condition

V.A.4) and the opacity limits of 10% with the exception of 20% for any 6 minutes in any one-hour period (Condition V.A.9) are more stringent than the NSPS standards. In addition, the use of low NO<sub>x</sub> burners (Condition V.A.1) meets state BACT.

The facility is PSD size for SO<sub>2</sub>. The use of fuel containing  $\leq 0.2\%S$  and a fuel throughput limit (Condition V.A.3) keep the SO<sub>2</sub> emissions below the PSD significant level of 40 tons/year. All other criteria pollutant emissions are also below their respective significant levels. Additionally, TB1 will not be operated concurrently with boiler ES7 (Condition V.A.7). Hence, PSD permitting requirements are not triggered.

Two general conditions from the minor NSR which do not have representation in the Title V permit General Conditions section are included: the permit invalidation condition (V.A.11) and the Violation of Ambient Air Quality Standard condition (V.A.12).

Boiler TB1 is also subject to MACT Subpart JJJJJJ applicable to existing boilers that are defined as being constructed or reconstructed on or before 6/04/2010 (40 CFR 63.11194(b)). The MACT requirements will be addressed in the next section (Section VI).

#### **B. Testing**

Initial visible emission evaluation by EPA Method 9 (40 CFR 60 Appendix A) was required in accordance with NSPS Subpart Dc. The Department and EPA have authority to require additional testing not included in this permit if necessary to determine compliance with an emission limit or standard.

#### **C. Monitoring**

Weekly visible emission observation requirement (Condition V.C.1) meets Part 70 requirements for periodic monitoring of opacity.

#### **D. Recordkeeping**

The permit includes requirements for maintaining records of all fuel information, testing, monitoring, notification and reports as required by the permit. Records of fuel usage include the monthly usage of each fuel as required by NSPS Subpart Dc, and the annual consumption of distillate oil to demonstrate compliance with the throughput limit.

#### **E. Notification and Reporting**

Permit requires initial notification and semi-annual fuel reports in accordance with NSPS Subpart Dc.

#### **F. Streamlined Requirements**

There are no streamlined requirements other than the General Conditions.

## **VII. CHANGES TO THE TITLE V OPERATING PERMIT TO INCORPORATE MACT SUBPART JJJJJJ REQUIREMENTS ON ALL BOILERS (ES1, ES2, ES7, ES8, ES9, ES10, and TB1)**

All boilers at the facility including TB1 were constructed or reconstructed before 6/04/2010, hence they are affected existing sources according to MACT Subpart JJJJJJ (40 CFR 63.11194(b)). All of them burn oil or biomass (poultry fat). Hence, they are in the same subcategory of existing “biomass or oil units with heat input capacity of 10 million BTU/hour and greater” according to Table 2 of the MACT. All applicable requirements are identified and incorporated into a new **Section VI. MACT Subpart JJJJJJ Requirements on Boilers (ES1, ES2, ES7, ES8, ES9, ES10, and TB1)** and discussed below.

### **A. Limitations**

The general compliance requirement in 40 CFR 63.11205(a) refer to general operation and maintenance procedures which are the same as in General Condition O of the Title V permit; hence, there is no need to repeat in Section VI. The requirements would be more useful for area sources which are also minor for criteria pollutants and hence, not subject to Title V permitting.

### **B. Testing**

The initial compliance requirements are the first biennial boiler tune-up (40 CFR 63.11214(b)) to be conducted by 3/21/2012 (40 CFR 63.11196(a)(1)), and the one-time energy assessment by a qualified energy assessor (40 CFR 63.11214(c)) to be conducted by 3/21/2014 (40 CFR 63.11196(a)(3)). For the rental boiler TB1, as long as it is operated on-site, it is the permittee’s responsibility to make sure that those requirements are met.

### **C. Monitoring**

The continuing compliance requirement is the biennial boiler tune-ups, each must be conducted no more than 25 months after the previous one (40 CFR 63.11223(a)).

### **D. Recordkeeping**

The facility shall keep records as required by 40 CFR 63.11225(c), including, but not limited to, copies of all Initial Notifications, Notifications of Compliance Status, biennial compliance certification reports, and all supporting documentations. Records of tune-ups, monthly fuel type and amount, any malfunctions and corrective actions shall also be kept (40 CFR 63.11225(c)(2)).

### **E. Notifications and Reporting.**

Initial notification of applicability for the boilers must be submitted by 9/17/11 (40 CFR 63.11225(a)(2)). The date has already passed, however, the condition is left in the permit to make sure that the facility checks for compliance, especially for TB1. As Virginia has not received delegation for the MACT, the initial notification should be sent to EPA Region III and a courtesy copy to DEQ central office.

Notification of Compliance Status must be submitted to EPA Region III and DEQ, Tidewater Regional Office no later than 120 days after the compliance date for each of the initial compliance requirements discussed above (40 CFR 63.11225 (a)(4)).

Biennial Compliance Certification reports must be prepared and submitted upon request (40 CFR 63.11225(b)). The first report should be prepared by 3/01/2015 and subsequent ones by 3/01 every other year, as clarified in the EPA Implementation Tools website- Table of Requirements for Area Source Boilers dated 8/25/11 at <http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.

## **VIII. PUBLIC PARTICIPATION**

The proposed permit will be place on public notice in the     [newspaper]     from     [date]     to     [date]     .